LAND USE

Historic and Recent Land Use

Historically the area of the Sac River basin was frequented by Osage and Delaware Indians. The first European settlers are speculated to have arrived from Tennessee around 1820. Sparse records make specific information prior to 1832 speculative in nature. The first documented settlers were two brothers from Tennessee that homesteaded in the area southwest of present day Bolivar in 1832-33. The eastern half of the Sac River basin was contained in Polk County as established in 1835 when Greene County was divided. Polk County was given its present day configuration in 1845 as a result of the formation of Cedar, Dade, Dallas, Hickory, St. Clair, and Webster counties.

Diversified farming was the principle occupation in the area through the early 1900s. Livestock production has been a significant agricultural enterprise in the Sac River basin throughout its history. Dairy farming became the primary agricultural enterprise in the basin beginning in the late 1800s and continuing through the 1960s, with peak production occurring in the 1930s. Beginning in the 1950s beef cattle production became the dominant agricultural commodity of the basin. Grain crops were the most frequently cultivated agricultural products in the early 1900s. Grain crops were gradually supplanted by hay and pasture production. Hay and pasture have dominated cultivated crop production since the 1960s for the area. The Sac River basin is one of the top cattle and hay producing areas in Missouri.

About 40% of the Sac River basin area was originally prairie (Schroeder 1982). The remainder was a mix of upland glades, savannahs, and oak-hickory forest.

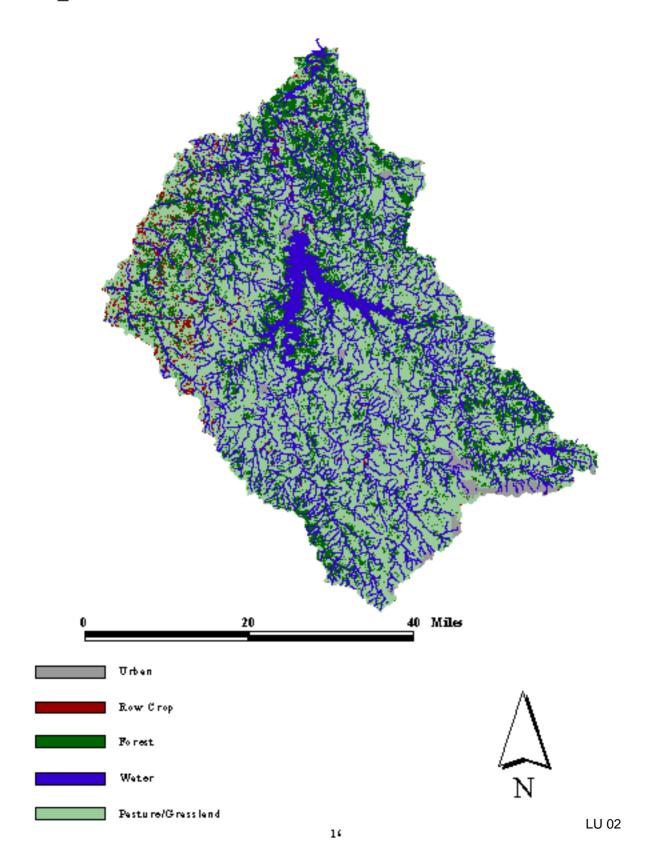
Landcover in the Sac River basin is predominantly grassland/pasture with forest second in abundance (Figure 10). The majority of grasslands are composed of non-native cool season grasses, primarily fescue. Grazing and hay production are the two most common uses of these expansive grassland areas. Forested areas (primarily deciduous) are more prevalent in the area between Stockton and Truman reservoirs in the northern-most reaches of the basin (Lower Sac River, Turkey Creek, and Brush Creek sub-basins). Row crop agriculture is concentrated in the western section of the basin (Horse-Cedar-Alder creeks sub-basin).

Soil Conservation Projects

Three communities in the basin participate in the National Flood Insurance Program (NFIP); Everton, Ash Grove, and Republic. Five communities in the basin, identified as having flood prone areas but not participating in the NFIP, are Billings, Humansville, and Stockton (FEMA 2001).

Several efforts to reduce erosion and implement environmentally sound practices in various stream systems have been used in the Sac River Basin. Five Special Area Land Treatment (SALT and EARTH) projects have been/are being implemented in the basin. They are Missouri Department of Natural Resources (MDNR) funded projects administered through local soil and water conservation districts. These projects utilize a variety of practices to reduce impacts while maintaining effective use of the resources. The initial SALT projects were initiated to focus primarily on soil erosion. New SALT projects are focusing on improving water quality in watersheds by reducing all forms of agricultural non-point source pollution and are usually designated as AgNPS SALTs. Currently there are two AgNPS

Figure 10. Landcover in the Sac River basin.



SALTs in the Sac River basin on the Upper Little Sac River watershed (Table 1 and Figure 11). Proposals have been submitted and funding is pending for similar projects at Valley Water Mill in the upper Little Sac River sub-basin in Greene County and in the Bear Creek basin, primarily in Polk County.

The Upper Little Sac River AgNPS Salt is made up of two watersheds totaling 44,954 acres. There are approximately 100 miles of stream, Fulbright Spring, and McDaniel Lake in these watersheds. Land use is estimated to be 59% grassland, 23% woodland, 3% reservoirs, and 14% other uses. Concerns in the watershed include increased urban growth, stormwater runoff, non-point pollutants resulting from poor land management practices, and contamination of groundwater via septic systems, sinkholes, and abandoned wells. Project goals are to protect and maintain the quality of drinking water resources while enhancing economic sustainability for agricultural producers through education and improved land management practices. The AgNPS SALT project is administered by the Missouri Soil and Water Conservation Service and receives support and technical assistance from a variety of agencies and organizations including Natural Resources Conservation Service (NRCS), MDC, University Outreach and Extension, the City of Springfield, Southwest Missouri State University, and Stream Team volunteers.

Public Areas

Most public areas allow activities such as fishing, hunting, birdwatching, nature study, and wildlife photography. Activities such as horseback riding, biking, camping, etc. that can cause environmental disturbance are restricted to certain areas and may be prohibited on some areas. Restrictions vary between public areas. Table 2 lists the public areas in the Sac River basin and known permitted activities. Figure 12 shows public area locations.

Corps of Engineers 404 Jurisdiction

Most instream and some stream-side projects require 404 permits. Applications for permits should be directed to the U.S. Army Corps of Engineers office. The Sac River basin is under the jurisdiction of the Kansas City District.

Kansas City District USACE

700 Federal Building

Kansas City, MO 64106-2896

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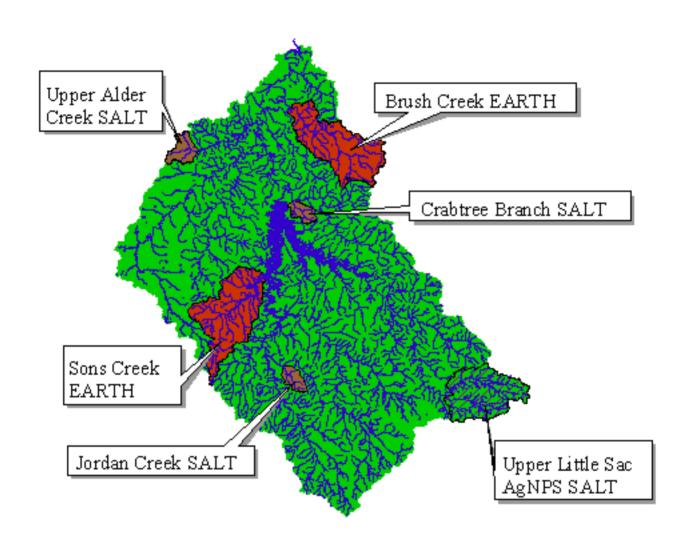
Topographic Coverage

Figure 13 depicts 7.5 minute topographic map coverage for the basin.

Table 1. Soil conservation projects in the Sac River basin.

Name	Type	Total	Treated	Dates
		Acres	Acres	
Upper Alder Creek	SALT	8,189	2,577	1994 - 1998
Crabtree Branch	SALT	5,070	2,120	Completed 6/94
Jordan Creek	SALT	5,565	1,312	Completed 6/94
Sons Creek	EARTH	57,639		1995 - 1999
Brush Creek	EARTH	54,341	13,811	1995 - 2001
Upper Little Sac River	AgNPS SALT	44,954		Sept. 1997 - June 2002
Sac River	AgNPS SALT	1,260,800		Oct 2000 - June 2006

Figure 11. Sac River basin land treatment areas.





SALT - Special Area Land Treatment Projects.

EARTH - Term used to designate a very large SALT Project

AgNPS SALT - Agricultural Non-Point Source Special Area Land Treatment Project



Table 2. Public areas in the Sac River basin.

Area	Acres	Activities	Ownership	
Antioch Bridge Access	83	Fishing, Hunting, Boating (Turnback Creek frontage)	MDC	
Birdsong CA	430	Fishing, Hunting, Camping	MDC	
Blackjack Access	212	Fishing, Hunting, Camping, Boating (Sac River and Brush Creek frontage)	MDC	
Bluff Springs CA	415	Hunting, Fishing	MDC	
Bois D'Arc CA	2,892	Hunting, Fishing, Hiking, Shooting Range	MDC	
Bona Glade Natural Area	18	Hiking, Wildlife Viewing, Nature Study	MDC	
Brush Creek CA	158	Hunting, Camping, Hiking	MDC	
Chesapeake Fish Hatchery	119	Hatchery Tours	MDC	
Dilday Mill Access	4	Fishing, Hunting, Camping, Boating (Sac River Access)	MDC	
Fiddlers Ford Access	50	Fishing, Hunting, Camping, Boating (Turnback Creek frontage)	MDC	
Fellows Lake	820	Fishing, picnicking	CU	
Horse Creek Prairie CA	80	Hunting	MDC	
Indigo Prairie CA	40	40 Hunting, Fishing		
La Petite Gemme Prairie CA	37	Wildlife Viewing, Nature Study	MPF	
Little Osage Prairie CA	Osage Prairie CA 38 Hunting, Hiking, Wildlif		MDC	
Little Sac Woods CA	772	Hunting, Fishing, Camping, Hiking (Little Sac River frontage)	MDC	
McDaniel Lake	300		CU	
Monegaw Prairie CA	270	Hunting, Fishing	MDC	
Nathan Boone Home	356	In development	MDNR	
Ozark Cavefish National Wildlife Refuge	40	Hiking, Wildlife Viewing, Nature Study	USFWS	
Niawathe Prairie CA	320	Wildlife Viewing, Nature Study	MDC/NC	
Paris Springs Access	208	Fishing, Hunting, Camping, Boating (Turnback Creek frontage)	MDC	
Pawhuska Prairie	76	Wildlife Viewing, Nature Study	MDC	
Pennsylvania Prairie	133	Hiking, Wildlife Viewing	MPF	

Phenix Access	155	Fishing, Hunting, Boating (Clear Creek frontage)	MDC
Pleasant Hope CA	1,106	Hunting, Fishing, Camping, Hiking, Shooting Range (un-manned)	MDC
Rocky Barrens CA	191	Hunting	MDC
Sky Prairie CA	200	Hunting	MDC
Sloan (Dr. O. E. & Eloise) CA	320	Hunting, Fishing	MDC
Stockton Reservoir	41,472	Hunting, Fishing, Camping	USACE
Stony Point Prairie CA	640	Hunting, Fishing	MDC
Truman Reservoir	162,495	Hunting, Fishing, Camping	USACE
Turkey Creek CA	160	Hunting, Camping	MDC
Twenty-Five Mile Prairie CA	220	Hunting, Fishing, Hiking	MDC

^{1 -} CA = Conservation Area, NA = Natural Area

^{2 -} MDC = Missouri Department of Conservation, CU= City Utilities of Springfield, MPF = Missouri Prairie Foundation, NC = The Nature Conservancy, USACE = U. S. Army Corps of Engineers.

Figure 12. Public lands of the Sac

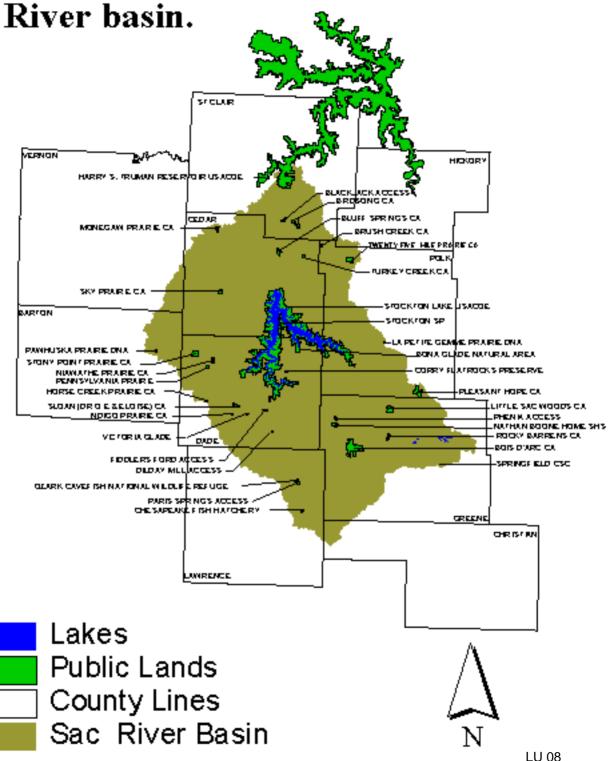
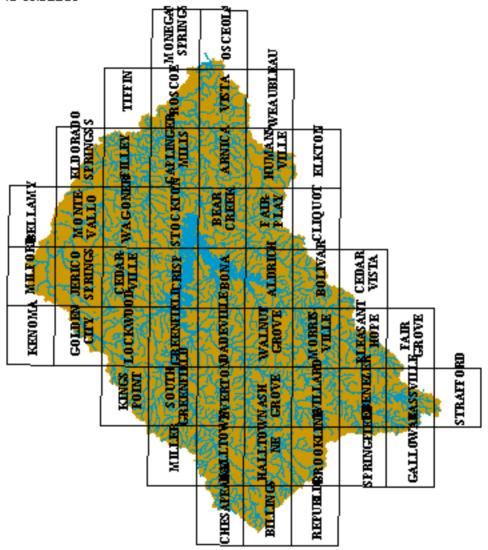
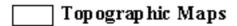


Figure 13. Topographic map coverage for the Sac River basin.







Sac River Basin

